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09/472,383	12/23/1999	A. JOSEPH MUELLER	99.418	8664

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EXAMINER

NEURAUTER, GEORGE C

ART UNIT	PAPER NUMBER
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2158

DATE MAILED: 09/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

*Handwritten signature*

## Office Action Summary

Application No.

09/472,383

Applicant(s)

MUELLER ET AL.

Examiner

George Neurauter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other:

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-25 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6 396 912. Although the conflicting claims are not identical, they are not patentably distinct from each other because both US Patent 6 396 912 and the instant application claim a network comprising a plurality of DSL modems connected to each other via a common wiring connection, a customer premise modem, and a central office and the use of an initialization signal.

### *Claim Objections*

3. Claims 1-25 objected to because of the following informalities:

It is common Office practice to address a new limitation by first referring to, for example, a system as "a system" instead of "the system". The Examiner suggests the Applicant amend the claims to correct these informalities. The Examiner will assume each limitation has proper antecedent basis.

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The Examiner also suggests canceling the number "16" from claim 14 as it does not appear to further limit the claim nor refer to an item in a drawing.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-5, 15-16, 19, and 21-24 rejected under 35 U.S.C. 102(e) as being anticipated by Foley [US Patent 6 069 899].

Regarding claim 1, Foley discloses a network system providing a home network between at least a first customer premise device and a second customer premise device within a customer premise, the system comprising:

a first digital subscriber loop modem in communication with the first customer premise device; and

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a second digital subscriber loop modem in communication with the second customer premise device, the second and first digital subscriber loop modems in communication over a common wiring connection; and

wherein the home network accommodates DSL connections with the telephone company central office during home networking sessions. [Figure 3; column 4, lines 15-33; column 5, line 43-column 23]

Regarding claim 2, Foley discloses the invention of claim 1 wherein the digital subscriber modems utilize a duplex communication channel between them. [column 7, lines 25-27]

Regarding claim 3, Foley discloses the invention of claim 1 wherein the network connection between the first and second digital subscriber loop modems utilize the digital subscriber loop frequency spectrum to communicate between the first and second computer devices. [column 6, lines 40-49 and 61-62]

Regarding claim 4, Foley discloses the invention of claim 3 wherein the spectrum used for home networking is contained within the power spectral density mask used for DSL connections. [column 6, lines 40-49 and 61-62]

Regarding claim 15, Foley discloses the invention of claim 1 wherein the digital subscriber loop modems provide an Asymmetric Digital Subscriber Loop System. [column 4, lines 15-33]

Regarding claim 16, Foley discloses the invention of claim 1 wherein the central office comprises a node on the network. [column 1, line 65-column 2, line 15, specifically line 5-8]

Regarding claim 19, Foley discloses the invention of claim 1 wherein the first and second digital subscriber loop modems recognize the initiation signals for a digital subscriber loop

connection from the customer premise DSL modem. [column 10, line 52-column 11, line 3;  
column 11, lines 15-25]

Claim 21 is rejected under 35 USC 103(a) since claim 21 contains the same limitations as recited in claim 1.

Claim 22 is rejected under 35 USC 103(a) since claim 22 contains the same limitation as recited in claim 3.

Claim 23 is rejected under 35 USC 103(a) since claim 23 contains the same limitations as recited in claim 2.

Regarding claim 24, Foley discloses the invention of claim 21 wherein the central office comprises a node on the network and communications are routed through the central office.  
[column 1, line 65-column 2, line 15, specifically line 5-8]

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 6-14, 17-18, 20, and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Foley in view of "Proposed Techniques for G.hn" by Matsushita Electric Industrial Co. Ltd. Of Japan (hereinafter "Techniques")

Regarding claim 5, Foley discloses the invention of claim 3.

Foley discloses the portion of spectrum used for home networking that corresponds to the DSL downstream spectrum as described above, however, Foley does not expressly disclose wherein the spectrum is a function of received power.

"Techniques" discloses wherein the home networking spectrum is a function of the received power in that spectrum measured during previous DSL connections. [page 4, "3.5 Simultaneous User Data Channel"]

It would have been obvious to one skilled in the art at the time the invention was made to use the invention as described in Foley regarding claim 3 with the home networking spectrum as described in "Techniques". "Techniques" discloses that the home networking spectrum allows for data to be transferred before the DSL connection is negotiated without having to wait for the negotiation to complete [page 4, "3.5 Simultaneous Use Data Channel"], which would motivate one of ordinary skill in the art to combine the teachings of Foley and "Techniques". Therefore, it would have been obvious to achieve the limitations as described in claim 5.

Regarding claim 6, Foley discloses the invention of claim 1.

Foley does not expressly disclose wherein a networking connection and initialization does not invoke a DSL connection attempt.

"Techniques" discloses wherein the home networking initiation and connection signaling does not invoke a DSL connection attempt. [page 4, "3.5 Simultaneous User Data Channel"]

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Claim 6 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 5 also applies to claim 6.

Regarding claim 7, Foley discloses the invention of claim 1.

“Techniques” discloses wherein the G.hs protocol is utilized to establish the network communication session. [page 2, “Introduction”]

It would have been obvious to one skilled in the art at the time the invention was made to use the invention as described in Foley regarding claim 1 with the G.hs protocol as described in “Techniques”. “Techniques” discloses that the methods are used with DSL connection establishment techniques [page 2, “Introduction”] and that there is a need in the art to analyze line conditions in order to choose the most efficient mode of communication provided by the methods [page 3, 3. Proposals for Required Functionality in G.hs”], which would motivate one skilled in the art to combine the teachings of Foley and “Techniques”. Therefore, it would have been obvious to achieve the limitations as described in claim 7.

Regarding claim 8, Foley and “Techniques” discloses the invention of claim 7.

“Techniques” discloses wherein the G.hs signaling would be performed over a set of tones specifically for home networking session establishment. [page 4, “3.5 Simultaneous User Data Channel”; page 6, “4.1.2 xDSL Bands”, paragraph 3 beginning “The Channel Audit Tones frequencies....”]

Claim 8 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 7 also applies to claim 8.

Regarding claim 9, Foley and “Techniques” discloses the invention of claim 7.



“Techniques” discloses wherein one consumer premise modem initiates a home network connection by signaling with the central office DSL modem and other consumer premise modems decipher the communications but do not participate in the establishment of the network connection. [page 4, “3.5 Simultaneous User Data Channel”, “3.7 Modularity”, and “3.8 External Controllability”]

Claim 9 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 5 also applies to claim 9.

Regarding claim 10, Foley and “Techniques” disclose the invention of claim 9.

Foley discloses wherein the flag signal comprises of a ‘no common mode’ selection in a mode select message followed by a non-standard information field pertaining to establishing a home networking connection. [column 10, line 52-column 11, line 30]

Regarding claim 11, Foley discloses the invention of claim 1.

“Techniques” discloses wherein timing normally provided by the central office modem is provided by a consumer premise modem during a networking session. [page 4, “3.5 Simultaneous User Data Channel”]

Claim 11 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 5 also applies to claim 11.

Regarding claim 12, Foley discloses the invention of claim 1.

“Techniques” discloses wherein the digital subscriber loop protocol comprises a G.lite protocol. [page 2, “Introduction”]

It would have been obvious to one skilled in the art at the time the invention was made to use the invention as described in Foley regarding claim 1 with the G.lite protocol as described in

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“Techniques”. “Techniques” discloses that G.lite enables DSL connections to operate without the use of splitters [page 4, “3.3 Splitter Probe”], which would motivate one of ordinary skill in the art to combine the teachings of Foley and “Techniques”. Therefore, it would have been obvious to achieve the limitations as described in claim 12.

Regarding claim 13, Foley and “Techniques” disclose the invention of claim 12.

“Techniques” discloses wherein a timing signal is provided in the absence of a downstream pilot. [page 9, “4.2.1 Fallback and Error Recovery”, paragraph 2 beginning “If the xTU-R is unable to detect the xTU-C downstream pilot tone...”]

It would have been obvious to one skilled in the art at the time the invention was made to use the invention as described in Foley and “Techniques” regarding claim 12 with the timing signal in absence of a downstream pilot as described in “Techniques”. “Techniques” discloses that the invention is used to fallback to legacy protocols and error recovery [page 4, “3.4 Voiceband Fallback” and “3.6 Fallback for pre-G.hs xTU”; page 9, “4.2.1 Fallback and Error Recovery”], which would motivate one of ordinary skill in the art to combine the teachings of Foley and “Techniques”. Therefore, it would have been obvious to achieve the limitations as described in claim 13.

Regarding claim 14, Foley and “Techniques” disclose the invention of claim 13.

Foley discloses wherein the DMT carrier 16 provides the timing signal. [Figure 3; column 3, lines 10-19]

Regarding claim 17, Foley discloses the invention of claim 16.

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Foley discloses wherein the central office modem addresses a network connection to a particular home network modem [column 5, lines 20-39], however, Foley does not disclose using G.hs.

“Techniques” discloses that G.hs is implemented in a central office modem [page 4, “3.6 Fallback for pre-G.hs xTU”, “3.7 Modularity”, and “3.8 External Controllability”]

Claim 17 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 7 also applies to claim 17.

Regarding claim 18, Foley discloses the invention of claim 1.

“Techniques” discloses wherein the first and second digital subscriber loop modems recognize the initiation signals for a digital subscriber loop connection from the central office DSL modem. [page 4, “3.7 Modularity” and “3.8 External Controllability”]

Claim 18 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 5 also applies to claim 18.

Regarding claim 20, Foley discloses the invention of claim 1.

“Techniques” discloses wherein the first and second digital subscriber loop modems are restricted to transmit at a reduced transmission power level to accommodate digital subscriber loop connections with the central office. [page 4, “3.6 Fallback for pre-G.hs xTU”]

Claim 20 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 13 also applies to claim 20.

Regarding claim 25, Foley discloses a local area network providing a network connection within a customer premise, comprising:

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a plurality of customer premise digital subscriber line modems providing communication between computer devices;

a first digital subscriber line modem providing communications with a first computer device; and

a second digital subscriber line modem providing communications to a second computer device. [column 1, lines 25-40; column 3, lines 10-19; column 5, lines 20-39]

“Techniques” discloses wherein the network connection between the first and second digital subscriber loop modems utilize the digital subscriber loop frequency spectrum to communicate between the first and second computer devices. [page 4, “3.5 Simultaneous User Data Channel”]

Claim 25 is rejected under 35 USC 103(a) since the motivations to combine references put forth regarding claim 5 also applies to claim 25.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5 668 857 to McHale;

US Patent 5 557 612 to Bingham;

“G.lite Standard Approved” by Salvatore Salamone;

“Technical Report TR-026: T1.413 Issue 2 ATM based ADSL ICS” by ADSL Forum.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Neurauter whose telephone number is 703-305-4565. The examiner can normally be reached on Mon-Fri 8am-4:30pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-7240.

gcn  
September 25, 2002



**DAVID WILEY**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**